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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,106	08/28/2001	Kalahasthi Chenchu Indukumar	09819-003001	7712

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EXAMINER
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VUONG, BACH Q

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/941,106	<b>Applicant(s)</b> INDUKUMAR ET AL.	
	<b>Examiner</b> Bach Q. Vuong	<b>Art Unit</b> 2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-10 and 12-22 is/are rejected.
- 7) ☒ Claim(s) 6, 11 and 24-30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

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### ***Claim Objections***

Claim 26 is objected to because of the following informalities:

All limitations recited in claim 26 are identical with its parent claim 6. Applicant is suggested to delete or amend claim 26. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 7-10, 12-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Taguchi et al. (US 5,986,987).

Taguchi et al., according to Figs. 9-14 and 20-41, shows a data processing apparatus comprising all features of the claimed invention as interpreted below:

Regarding claim 1, see Figs. 9-14 and 33-38 which show a data processing apparatus comprising means for generating a signal representative of recorded data on a data storage medium (see optical head 2 and amplifier 6); filtering means (see circuit 7) for receiving the generated signal and equalizing the generated signal response to a predetermined level; and signal correcting means (see circuits 9, 13, 14 and 17) for detecting a plurality of multiple-bit data representative of the equalized signal and processing the multiple-bit data in dependence upon a predetermined set of data correction

rules which, in operation of the apparatus, has the effect of enhancing the detection capability of the apparatus.

Regarding claim 2, see Figs. 9-14 and 33-41 which show a data processing apparatus wherein the set of data correction rules (see circuit 14 for details) is selectively applied to a portion of the multiple-bit data, such application being based on a comparison of the multiple-bit data with predetermined multiple-bit sequences and wherein the portion of the multiple-bit data are corrected in dependence upon the comparison.

Regarding claim 3, see Figs. 13 and 14 which show a data processing apparatus wherein the multiple-bit data are corrected by interchanging and/or shifting the polarities of a number of data-bits at the portion of multiple-bit data.

Regarding claim 4, see the respective disclosure of Figs. 13 and 33-41 which show a data processing apparatus wherein the set of data correction rules is selectively applied to at a plurality of data-bit locations associated with the portion (see column 24, lines 6-67).

Regarding claim 5, see Figs. 13 and 14 which show a data processing apparatus wherein the data corrections are effected in a manner which takes account of amplitude variations in the signal representation of the recorded data and the detected data (see circuit 14).

Regarding claims 7 and 8, see Figs. 9-14 and 33-38 which show a data processing apparatus wherein the filtering means (see Filter 7) is arranged to provide an enhancement of the generated signal response to be detected.

Regarding claims 9-10, see Figs. 9-14 and 33-38 which show a data processing apparatus wherein the signal correcting means (see circuits 9, 13, 14 and 17) comprises a zero-threshold detector. And processing means connected to the output side of the detector.

Regarding claim 12, see Figs. 9-14 and 30-38 which show a method of enhancing the detection capability of a data processing apparatus comprising: generating a signal representative of recorded data on a data storage medium (see optical head 2 and amplifier 6); equalizing the generated signal response at predetermined level (see filter/Equalizer 7), and detecting a plurality of multiple-bit data representative of the equalized signal and processing the multiple-bit data in dependence upon a determined set of data correction rules (see circuits 9, 13, 14 and 17).

Regarding claim 13 and 14, see Figs. 9-14 and 30 which show a method of enhancing the detection capability of a data processing apparatus wherein the processing of the data is effected in dependence upon different energy criteria (see column 21, line 31 through column 22, line 8).

Regarding claim 15, see Figs. 13-14 and 33-41 which show a method of enhancing the detection capability of a data processing further comprising identifying error events and devising correction rules to correct errors at predetermined data-bit location associated with the detected data distribution (see column 24, lines 6-67).

Regarding claim 16, see Figs. 9-14 which show a data processing system incorporating means (see Fig. 9 for details) for detecting multiple-bit data representative of an equalized signal (see filter/equalizer 7) and means (see circuits 9, 10, 13-14) for processing the data in dependence upon a predetermined set of data correction rules such as to enhance the detection capability of the system.

Regarding claim 17, see Figs. 9-14 which show a data processing system wherein the data are processed sequentially or parallelly in accordance with two or more different kinds of data correction rules, one or more rules at a time.

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Regarding claim 18, see Figs. 9-14 which show a data processing system wherein the data are processed in accordance with the different kinds of data correction rules having different sequence pathways associated therewith.

Regarding claim 19, see rejection applied to claim 4.

Regarding claims 20-22, see rejection applied to claim 5.

#### ***Allowable Subject Matter***

Claims 6, 11, 23-25 and 27-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 6, 11, 23-25 and 27-30 are allowable over prior art of record because all cited references, considered as closest prior art and viewed in a combination or individual, fails to suggest or fairly teach a data processing apparatus including all features as particularly recited in each of claims 6, 11, 23-25, 27-30.

#### ***Cited References***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references relate to a system reproducing data from an optical disk having recorded data recorded thereon.

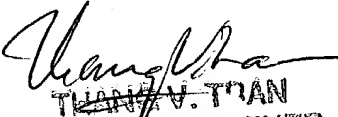
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bach Q. Vuong whose telephone number is (703) 305-7355. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (703) 305-6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BV  
September 30, 2004

  
THANH V. TRAN  
PRIMARY EXAMINER